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AUTHOR Abordo, Enrique J.
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ABSTRACT

Evaluated was a summer program in reading and mathematics for handicapped pupils in special education classes designed to maintain and improve these skills through individualized and small group instruction. Initial diagnostic testing using criterion-referenced tests indicated target areas for basic skills instruction, which was implemented through the use of a prescriptive multi-modal teaching method. After retesting, for each of the four components involved--neurologically impaired/emotionally handicapped, emotionally handicapped (A and B classes), neurologically impaired and/or severely physically handicapped, and emotionally handicapped and neurologically impaired (demonstration classes)--it was found, in respective order, that 91%, 77%, 85%, and 78% of the students mastered at least one math objective; and 93%, 78%, 87%, and 61% mastered at least one language objective. Furthermore, the results indicated that in either category the majority of participants could obtain from one to four instructional objectives. (Appended materials include behavioral objectives used and results in tabular form). (Author/IM)

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EVALUATION REPORT

Function No. 09-61625(a)

SUMMER PROGRAM OF READING AND MATHEMATICS FOR HANDICAPPED PUPILS IN SPECIAL EDUCATION CLASSES (NEUROLOGICALLY IMPAIRED - EMOTIONALLY HANDICAPPED, EMOTIONALLY HANDICAPPED - A AND B CLASSES, NEUROLOGICALLY IMPAIRED AND/OR SEVERELY PHYSICALLY HANDICAPPED, AND THE DEMONSTRATION CLASSES FOR THE TEACHER TRAINING INSTITUTE)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ENRIQUE J. ABORDO, Ph.D.

An evaluation of a New York City school district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the summer of 1975.

EC093202

Dr. Anthony J. Polemeni, Director
BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF EDUCATIONAL EVALUATION
110 LIVINGSTON STREET, BROOKLYN, N. Y. 11201

TABLE OF CONTENTS

		Page
	List of tables	II
I.	The Programs	1
II.	Evaluative Procedures	2
III.	Findings	4
IV.	Summary of Major Findings, Conclusions and Recommendations	60
	Program abstract	63
	Addenda	64

LIST OF TABLES

Table		Page
1.	Percentage of students originally passing the pretest and the percentage passing the post-test after initially failing pretest according to instructional objective in the Tobe math test, levels K and L	5
2.	Percentage of students originally passing the pretest and the percentage passing the post-test after initially failing pretest according to instructional objective in the Tobe language test, levels K and L, and the P.R.I.	9
3.	Distribution of pupil non-mastery on pretest and no post test follow-up	
4.	Distribution of pupil mastery of instructional objective prior to instruction	
5.	Distribution of pupil mastery by instructional objective as a result of instruction: the ratio of pupils achieving mastery to pupils attempting mastery and the percentage of mastery	
6.	Distribution of pupil mastery by instructional objective as a result of instruction: the ratio of pupils achieving mastery to pupils attempting mastery and the percentage of mastery	
7.	Distribution of the number of instructional objectives mastered after instruction	

Table		Page
7.	Distribution of the number of instructional objectives mastered after instruction	28
8.	Distribution of percentage of pupils achieving levels of mastery of instructional objectives	29
9.	Percentage of students originally passing the pretest and the percentage passing the post-test after initially failing pretest according to instructional objective in the EHAB component's modification of the SDAT and SDRT	31
10.	Distribution of pupil non-mastery of pretest and no post-test follow up	34
11.	Distribution of pupil mastery of instructional objectives prior to instruction	35
12.	Distribution of pupil mastery by instructional objective as a result of instruction: the ratio of pupils achieving mastery to pupils attempting mastery and the percentage of mastery	36
13.	Distribution of the number of instructional objectives mastered after instruction	39
14.	Distribution of percentage of pupils achieving levels of mastery of instructional objectives	41
15.	Percentage of students originally passing the pretest and the percentage passing the post-test after initially failing pretest according to instructional objective in the NI component's modification of the SDAT and SDRT	43
16.	Distribution of pupil non-mastery on pretest and no post-test follow-up	45

Table		Page
17.	Distribution of pupil mastery of instructional objectives prior to instruction	46
18.	Distribution of pupil mastery by instructional objective as a result of instruction: the ratio of pupils achieving mastery to pupils attempting mastery and the percentage of mastery	48
19.	Distribution of the number of instructional objectives mastered after instruction	50
20	Distribution of percentage of pupils achieving levels of mastery f instructional objectives	51
21.	Percentage of students originally passing the pretest and the percentage passing the post-test after initially failing pretest according to instructional objective in the TTI component's modification of the SDAT and SDRT	53
22.	Distribution of pupil non-mastery on pretest and no post-test follow-up	55
23	Distribution of pupil mastery of instructional objectives prior to instruction	56
24	Distribution of pupil mastery by instructional objective as a result of instruction: the ratio of pupils achieving mastery to pupils attempting mastery and the percentage of mastery	57
25	Distribution of the number of instructional objectives mastered after instruction	58
26	Distribution of percentage of pupils achieving levels of mastery of instructional objectives	59

I. The Programs

The Summer Program in Reading and Mathematics for Handicapped Pupils in Special Education Classes aimed to maintain and to improve these skills through individualized and small group instruction. Initial diagnostic testing using criterion reference tests indicated those basic skills in which a participant would benefit by improvement. These target areas were subjected to a prescriptive multi-modal teaching method involving a wide range of materials and techniques. Pupils were later retested to determine the extent of successful remediation.

The participants included those eligible pupils who lived in the area of a Title I eligible school. The present evaluation is concerned with the following components of the summer program: 1. Neurologically impaired-emotional handicapped (herein called the NIEH component), 2. Emotionally handicapped -- A and B classes (herein called the EHAB component), 3. Neurologically impaired and/or severely physically handicapped (herein called the NI component), and 4. Emotionally handicapped and neurologically impaired demonstration classes for the Teacher Training Institute (herein called the TTI component). Pupils were selected according to the following criteria: 1. Teacher observation and ratings of classroom work during the regular school year, 2. The results of MAT and WRAT evaluations administered during the regular school year, and 3. Pupils who were two or more years retarded in reading and/or mathematics.

Classes were held in all five boroughs and met from July 7 - August 15, 1975. The summer program itself functioned from July 1 - August 31, 1975.

II. Evaluative Procedures

Although the evaluation centered around the three objectives outlined in the evaluation design, the results obtained from each of the program's components will be treated separately.

A. Objective #1.

"To determine if, as a result of participation in the program, 70 percent of the pupils master at least one instructional objective which prior to the program they did not master."

1.1 Subjects: All program participants.

1.2 Methods and Procedures: "Using the May, 1975 Title I city-wide test as a leveler, all participants will be administered, as a pretest, selected criterion-referenced tests ... to ascertain individual instructional objectives for each pupil. For each instructional objective diagnosed as requiring remediation (as determined by pretest failure), a post-test will be administered on an individual basis after an appropriate interval of instruction. For each instructional objective, results of passing and failing on both the pretest and the post-test will be recorded on the Class Evaluation Record."

The Random House Criterion Reading Tests, McGraw-Hill Tests of Basic Experience (Tobe) and the American Guidance Key Math Tests were the criterion-reference tests selected in the original evaluation design. However, only the NIEH component, which used the Tobe, in addition to the McGraw-Hill P.R.I., will be in basic accord. Due to an error in the purchasing department, the other three components were forced to choose another diagnostic instrument. The supervisors chose Harcourt, Brace, World, Inc's Stanford Diagnostic Reading Test (SDRT) and Arithmetic Test (SDAT), with modification cleared through the Title I coordinator. The modification rendered the test a nonstandardized teacher determined criterion-referenced test. The supervisors chose the items from SDRT and SDAT which tested the instructional objectives they defined and determined a mastery criterion. The supervisor of the EHAB component elected a mastery level of 70% correct responses. The procedures chosen by the TTI and NI components are addended to the present report. These three components will be evaluated according to the modifications.

1.3 Data analysis: "Data will be analyzed and presented in tabular form ascertaining the percentage of participants demonstrating mastery or non-mastery of each instructional objective ... at inital testing, and final testing."

Although the original design called for an analysis based upon the SED classification system, this will not be done entirely. The absence of guidelines for translating the microskills tested in the Tobe and P.R.I. into the instructional objectives of the state classification system would render the task questionable and presumptuous. Therefore, the instructional objectives defined in these tests will be reported in the language of these tests.

1.4 Time Schedule: "The pretest will be administered at the beginning of the program; the post-test at appropriate intervals throughout the life of the program."

B. Objective #2.

"To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives."

2.1 Subjects: See 1.1 above

2.2 Methods and Procedures: See 1.2 above.

2.3 Time Schedule: See 1.4 above

2.4 Data Analysis: "Data will be analyzed and presented in narrative and tabular form to ascertain each of the following:

A) The distribution of pupils failing to demonstrate mastery prior to instruction and not receiving sufficient instruction to receive the post-test.

B) The distribution of pupils demonstrating mastery of objectives prior to instruction.

C) The distribution of pupil mastery as a result of instruction by instructional objectives.

D) The distribution of the number of objectives mastered as a result of instruction.

E) The distribution of percentage of pupils achieving various levels of mastery of instructional objectives."

C. Objective #3.

"To determine the extent of which the program, as actually carried out, coincided with the program as described in the project proposal."

Statements regarding this evaluation objective will be based on interviews

with supervisors and teachers-in-charge, as well as classroom observations made during visits to instruction sites.

III. Findings

I. NIEH component.

A. Objective #1: "To determine if, as a result of participation in the in the program, 70 percent of the pupils master at least one instructional objective which prior to the program they did not master."

The data were summarized according to the percentage of students passing the pretest and percentage of students passing the post-test. Table 1 presents the data from the Tobe math test, Levels K and L. Table 2 presents the data from the Tobe language test, Levels K and L, and the P.R.I., Level Red. Regarding the specific goal of objective #1, 91% of the pupils post-tested mastered at least one math instructional objective, while 93% mastered at least one language objective (see Table 7).

B. Objective #2: "To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives."

Table 3 reports the number and percentage of pupils not receiving a post-test categorized according to the number of objectives failed during pretesting. 33% of the number of registrants reported by the component as participating in some degree were not post-tested. While all of these represent program dropouts, many of these dropped out within the last 1 - 2 weeks when they were scheduled for retesting. It was suggested that many of the pupils, realizing that the program was soon to end, simply stopped coming.

Table 4 shows the distribution of pupils demonstrating mastery prior to instruction. While few students actually demonstrated 100% mastery in initial testing (see Table 3), 61 - 63% of the students mastered at least 75% of the

Table 1

PERCENTAGE OF STUDENTS ORIGINALLY PASSING THE PRETEST AND THE PERCENTAGE PASSING THE POST-TEST AFTER INITIALLY FAILING PRETEST ACCORDING TO INSTRUCTIONAL OBJECTIVE IN THE TOBE MATH TEST, LEVELS K AND L

Instructional Objectives	Percentage passing pretest	Percentage only passing post-test
TOBE, Level K		
1. Quantity	84	80
2. Term - position	87	75
3. Geometrical shapes	94	100
4. Geometrical terms	90	100
5. Counting	84	80
6. Geometrical shapes - classes	87	50
7. Terms - half	52	93
8. Counting & logic	84	80
9. Terms - pair	84	80
10. Clock-reading terms	65	73
11. Geometrical terms	77	71
12. Terms - dozen	77	71
13. Relative capacity	81	50
14. Terms - small	87	100

Table 1 (con't.)

Instructional Objectives		Pretest	Post-test
15.	Clock-reading terms	84	60
16.	Coin identification - money values	42	61
17.	Relating numerals to objects	87	75
18.	Measuring - thermometers	58	77
19.	Terms - whole/part	71	89
20.	Terms - same	71	89
21.	Terms - few	39	74
22.	Relative weights	74	75
23.	Relating numbers to objects	58	92
24.	Class inclusion	42	61
25.	Measuring - length	29	64
26.	Coin identification - money values	55	71
27.	Quantity versus volume	74	88
28.	Terms - specific quantity	58	46
TOBE, Level L			
1a.	Relative size	98	50
1b.	Terms - empty	95	67
2a.	Relative weight	96	80

Table 1 (con't.)

Instructional Objectives		Pretest	Post-test
2b.	Clock reading	98	50
3a.	Terms - widest	73	59
3b.	Quantity: dozen = 12	82	70
4a.	Counting - subtracting	79	69
4b.	Terms - position	87	71
5a.	Terms - position	87	88
5b.	Numeral matching	79	78
6a.	Measuring - thermometer (cold)	70	47
6b.	Relationships: money-purse	38	56
7a.	Terms - matching	85	84
7b.	Counting - adding/numerals	81	75
8a.	Money values - relative expense	87	65
8b.	Inverse proportions	39	43
9a.	Measuring - ruler	96	60
9b.	Terms - matching	94	63
10a.	Measuring - calendar	96	100
10b.	Geometrical terms - curve vs. angle	60	50
11a.	Counting - subtracting/numeral	93	33
11b.	Relative age - logic	83	41
12a.	Terms - fraction	49	61
12b.	Relating numbers to objects	90	77

Table 1 (con't.)

Instructional Objectives		Pretest	Post-test
13a.	Geometrical terms - circles	79	67
13b.	Matching related objects	73	59
14a.	Terms - row	55	49
14b	Terms - fourth	89	57

Note. The number of students involved with each objective can be determined with information provided in Table 5.

Table 2

PERCENTAGE OF STUDENTS ORIGINALLY PASSING THE PRETEST AND THE PERCENTAGE PASSING THE POST-TEST AFTER INITIALLY FAILING PRETEST ACCORDING TO INSTRUCTIONAL OBJECTIVE IN THE TOBE LANGUAGE TEST, LEVELS K AND L, AND THE PRI

Instructional Objectives	Percentage passing pretest	Percentage only passing post-test
TOBE, Level K		
1. Comparatives	94	100
2. Negative class inclusion	94	100
3. Position terms	94	50
4. Past tense	21	67
5. Communication	74	56
6. Symbol decoding terms	88	75
7. Position - terms	47	78
8. Negative class inclusion	79	86
9. Position - terms	88	75
10. Contextual meaning	82	67
11. Negative class inclusion	85	60
12. Plurals - class inclusion	91	100
13. Position - terms	85	80
14. Position - terms	85	80

Table 2 (con't.)

Instructional Objectives	Pretest	Post-test
15. Future tense logic	76	100
16. Reading readiness - proper book position	47	67
17. Recognizing symbols - letters vs. numerals	79	57
18. Phonemes	91	0
19. Position - terms	76	25
20. Recognizing symbols - letter vs. non-letter	65	67
21. Reading readiness - missing component	85	80
22. Reading readiness - rhyming	56	60
23. Reading readiness - matching	76	100
24. Reading readiness - rhyming	53	63
25. Reading readiness - matching	79	71
26. Double comparatives - logic	88	25
27. Phonemes	62	46
28. Contextual meaning	85	40
TOBE, Level L		
1a. Negative class inclusion	99	100
1b. Contextual meaning	70	48
2a. Position - terms	92	67
2b. Listening - sentence subject	96	67
3a. Relating phonemes to letters	88	44

Table 2 (con't.)

Instructional Objectives	Pretest	Post-test
3b. Contextual meaning	92	50
4a. Contextual meaning	88	67
4b. Double class inclusion logic	83	77
5a. Position - terms	94	80
5b. Class inclusion - terms/logic	95	75
6a. Listening - subject-verb relationships	64	54
6b. Symbol decoding - terms	60	61
7a. Sound-letter relationships	79	75
7b. Letter discrimination-perception	74	65
8a. Symbol decoding - terms	44	63
8b. Future tense - logic	74	55
9a. Perception - logic	95	100
9b. Negative class inclusion	83	54
10a. Phonemes	77	67
10b. Listening - adverb	39	57
11a. Reading readiness - punctuation	60	42
11b. Contextual meaning	58	59
12a. Position - terms	88	56
12b. Phonemes	83	62
13a. Position - terms	70	57

Table 2 (con't.)

Instructional Objectives		Pretest	Post-test
13b.	Reading readiness - rhyming	42	47
14a.	Class inclusion - terms/logic	77	50
14b.	Letter recognition - terms	60	42
	PRI, Level A		
1.	Vowel sounds - matching	65	63
3.	Vowel sounds - unlike	72	54
4.	Consonant substitution - blends	74	50
5.	Consonant substitution - initial and final	67	73
6.	Consonant substitution - final	74	33
7.	Syllables - number	87	83
16.	Inflected words - singular/plural	78	90
17.	Inflected words - affixes	76	64
19.	Adjectives - positive, comparative, and superlative	85	29
20.	Preposition and prepositional phrases	89	40
21.	Pronouns	87	67
23.	Contractions - word pairs, etc.	93	67
24.	Compounds - recognition	83	63
28.	Subject-verb agreement - irregular	70	57

Table 2 (con't.)

	Instructional Objectives	Pretest	Post-test
29.	Sentence building - subject-predicate	83	63
38.	Like/unlike entities - word definition	98	100
39.	Like/unlike entities - synonyms	91	75
40.	Like/unlike entities - antonyms	91	25
41.	Like/unlike entities - positive/negative sentences	98	0
42.	Use of context - sentence completion	91	75
43.	Homonyms in context	87	50
44a.	Sentence sense - match	78	60
44b.	Sentence sense - identify nonsense	83	63
57.	Event sequence	57	45
58.	Story setting	76	36
59.	Story detail - recall/desc. words	76	18
62.	Cause	78	30
63.	Inference	67	40
64.	Conclusion	65	31
67a.	Main idea - title	76	18
67b.	Main idea - summary	76	18
68.	Character analysis - feelings	83	25
69.	Character analysis - motive/cause	83	13
72.	Sensory imagery	78	20

Table 2 (con't.)

Instructional Objectives		Pretest	Post-test
79.	Problem solution	89	20
83.	Reality and fantasy	89	0

Note. The number of students involved with each objective can be determined with information provided in Table 6.

Table 3

DISTRIBUTION OF PUPIL NON-MASTERY ON PRETEST AND NO POST-TEST FOLLOW UP

Number of Instructional Objectives Failed	Math Tests		Language Tests	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
15 or more	0	0	1	1.3
13-14	0	0	0	0
11-12	3	3.8	3	3.9
9-10	4	5.1	3	3.9
7-8	10	12.8	10	13.0
5-6	17	21.8	19	24.7
3-4	24	30.8	20	26.0
1-2	18	23.1	12	15.6
0	2	2.6	6	7.8
Not tested	0	0	3	3.9

Table 4

DISTRIBUTION OF PUPIL MASTERY OF INSTRUCTIONAL OBJECTIVE PRIOR TO INSTRUCTION

Math Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	99	63.1
51- 75%	50	31.8
26- 50%	5	3.2
0- 25%	3	1.9

Language Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	97	61.8
51- 75%	54	34.4
26- 50%	6	3.8
0- 25%	0	0

objectives tested. This means that four or less target objectives remained for instruction from the Tobe tests and nine or less from the P.R.I., however the number appeared to be sufficient for the program.

Tables 5 and 6 show the distribution of pupils mastering each objective as a result of instruction for both the arithmetic and the language test, respectively. In both cases remediation was directed to all objectives measured though the number of students involved with each objective varied greatly.

Table 7 reports the number of objectives mastered as a result of instruction. In the math tests only 8.9% mastered no objectives while 63.5% mastered three or more. In the language tests 6.4% mastered none, while 70.7% mastered three or more.

Table 8 presents the distribution of the percentage of pupils achieving various levels of mastery. 74.5% achieved 50% or more of the math objectives they initially failed, while 70% achieved that amount in the language test.

C. Objective #3: "To determine the extent of which the program, as actually carried out, coincided with the program as described in the project proposal."

The program adequately served the needs of the neurologically impaired-emotionally handicapped student. As determined by the site visits the NIEH component appeared to function excellently under able and creative leadership, and generally very good - excellent instruction. Solid formal classes on arithmetic and reading with individualized and small group instruction were supported by strong arts and crafts, physical education, shop programs, and field trips. The support programs, while chiefly motivational in concept, were excellently designed as part of the teaching method and tightly geared to the attainment of the diagnosed instructional objectives.

Three points seemed to adversely affect the programs that the component offered: 1. The late funding date led to a lack of supplies at the beginning of the program, 2. Busing problems at the Manhattan site (PS 11M) severely

Table 5

DISTRIBUTION OF PUPIL MASTERY BY INSTRUCTIONAL OBJECTIVE AS A RESULT OF INSTRUCTION: THE RATIO OF PUPILS ACHIEVING MASTERY TO PUPILS ATTEMPTING MASTERY AND THE PERCENTAGE OF MASTERY

Instructional Objective (Math)	Ratio	Percentage
TOBE, Level K		
1. Quantity	4/5	80.0
2. Term - position	3/4	75.0
3. Geometrical shapes	2/2	100
4. Geometrical terms	3/3	100
5. Counting	4/5	80.0
6. Geometrical shapes - classes	2/4	50.0
7. Terms - half	14/15	93.3
8. Counting - logic	4/5	80.0
9. Terms - pair	4/5	80.0
10. Clock-reading terms	8/11	72 7
11. Geometrical terms	5/7	71.4
12. Terms - dozen	5/7	71.4
13. Relative capacity	3/6	50.0
14. Terms - small	4/4	100

Table 5 (con't.)

Instructional Objective (Math)	Ratio	Percentage
15. Clock-reading terms	3/5	60.0
16. Coin identification - money values	11/18	61.1
17 Relating numerals to objects	3/4	75.0
18. Measuring - thermometers	10/13	76.9
19. Terms - whole/part	8/9	88.9
20. Terms - same	8/9	88.9
21. Terms - few	14/19	73.7
22. Relative weights	6/8	75.0
23. Relating numbers to objects	12/13	92.3
24. Class inclusion	11/16	68.8
25. Measuring - length	14/22	63.6
26. Coin identification - money values	10/14	71.4
27. Quantity versus volume	7/8	87.5
28. Terms - specific quantity	6/13	46.2
TOBE, Level L		
1a. Relative size	1/2	50.0
1b. Terms - empty	4/6	66.7
2a. Relative weight	4/5	80.0

Table 5 (con't)

Instructional Objective (Math)	Ratio	Percentage
2b. Clock reading	1/2	50.0
3a. Terms - widest	20/34	58.8
3b. Quantity - dozen = 12	16/23	69.6
4a. Counting - subtracting	18/26	69.2
4b. Terms - position	12/17	70.6
5a. Terms - position	14/16	87.5
5b. Numeral matching	21/27	77.8
6a. Measuring - thermometer (cold)	18/38	47.4
6b. Relationships - money-purse	44/78	56.4
7a. Terms - matching	16/19	84.2
7b. Counting - adding/numerals	18/24	75.0
8a. Money values - relative expense	11/17	64.7
8b. Inverse proportions	33/77	42.9
9a. Measuring - ruler	3/5	60.0
9b. Terms - matching	5/8	62.5
10a. Measuring - calendar	5/5	100
10b. Geometrical terms - curve vs. angle	25/50	50
11a. Counting - subtracting/numeral	3/9	33.3
11b. Relative age - logic	9/22	40.9
12a. Terms - fraction	39/64	60.9
12b. Relating numbers to objects	10/13	76.9
13a. Geometrical terms - circles	18/27	66.7

Table 5 (con't)

Instructional Objective (Math)	Ratio	Percentage
13b. Matching related objects	20/34	58.8
14a. Terms - row	28/57	49.1
14b. Terms - fourth	8/14	57.1

Table 6 (con't)

Instructional Objective (Language)	Ratio	Percentage
3b. Contextual meaning	3/6	50
4a. Contextual meaning	6/9	66.7
4b. Double class inclusion logic	10/13	76.9
5a. Position - terms	4/5	80.0
5b. Class inclusion terms/logic	3/4	75.0
6a. Listening - subject-verb relationships	15/28	53.6
6b. Symbol decoding - terms	19/31	61.3
7a. Sound-letter relationships	12/16	75.0
7b. Letter discrimination perception	13/20	65.0
8a. Symbol decoding - terms	27/43	62.8
8b. Future tense - logic	11/20	55.0
9a. Perception - logic	4/4	100
9b. Negative class inclusion	7/13	53.8
10a. Phonemes	12/18	66.7
10b. Listening - adverb	27/47	57.4
11a. Reading readiness - Punctuation	13/31	41.9
11b. Contextual meaning	19/32	59.4
12a. Position terms	5/9	55.6
12b. Phonemes	8/13	61.5
13a. Position terms	13/23	56.5

Table 6 (con't)

Instructional Objective (Language)	Ratio	Percentage
13b. Reading readiness - rhyming	21/45	46.7
14a. Class inclusion - terms/logic	9/18	50.0
14b. Letter recognition terms	13/31	41.9
P.R.I. - Level A		
1. Vowel sounds - matching	10/16	62.5
3. Vowel sounds - unlike	7/13	53.8
4. Consonant substitution - blends	6/12	50.0
5. Consonant substitution - initial and final	11/15	73.3
6. Consonant substitution - final	4/12	33.3
7. Syllables - number	5/6	83.3
16. Inflected words - singular/plural	9/10	90.0
17. Inflected words - affixes	7/11	63.6
19. Adjectives - Positive, comparative, and superlative	2/7	28.6
20. Preposition and prepositional phrases	2/5	40.0
21. Pronouns	4/6	66.7
23. Contractions - word pairs, etc.	2/3	66.7
24. Compounds - recognition	5/8	62.5
28. Subject-verb agreement - irregular	8/14	57.1

Table 6 (con't)

Instructional Objective (Language)	Ratio	Percentage
29. Sentence building - subject-predicate	5/8	62.5
38. Like/unlike entities - word definition	1/1	100
39. Like/unlike entities - synonyms	3/4	75.0
40. Like/unlike entities - antonyms	1/4	25.0
41. Like/unlike entities - positive/negative sentences	0/1	0
42. Use of context - sentence completion	3/4	75.0
43. Homonyms in context	3/6	50.0
44a. Sentence sense - match	6/10	60.0
44b. Sentence sense - identify nonsense	5/8	62.5
57. Event sequence	9/20	45.0
58. Story setting	4/11	36.4
59 Story detail - recall/desc. words	2/11	18.2
62. Cause	3/10	30.0
63. Inference	6/15	40.0
64. Conclusion	5/16	31.3
67a. Main idea - title	2/11	18.2
67b. Main idea - summary	2/11	18.2
68. Character analysis feelings	2/8	25.0
69. Character analysis: motive/cause	1/8	12.5
72. Sensory imagery	2/10	20.0

Table 6 (con't)

Instructional Objective (Language)	Ratio	Percentage
79. Problem solution	1/5	20.0
83. Reality and fantasy	0/5	0

Table 7

DISTRIBUTION OF THE NUMBER OF INSTRUCTIONAL OBJECTIVES MASTERED AFTER INSTRUCTION

Math Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	14	8.9
1-2	43	27.4
3-4	50	31.8
5-6	28	17.8
7-8	11	7.0
9-10	8	5.1
11 or more	3	1.8

Language Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	10	6.4
1-2	36	22.9
3-4	65	41.4
5-6	28	17.8
7-8	10	6.4
9-10	5	3.2
11 or more	3	1.9

Table 8

DISTRIBUTION OF PERCENTAGE OF PUPILS ACHIEVING LEVELS OF MASTERY OF INSTRUCTIONAL OBJECTIVES

Percentage of Mastery of Instructional Objectives (#Objectives Achieved) / (#Objectives Attempted)	Math Tests		Language Tests	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
90 - 100%	41	26.1	38	24.2
80 - 89%	17	10.8	14	8.9
70 - 79%	25	15.9	19	12.1
60 - 69%	15	9.6	20	12.7
50 - 59%	19	12.1	19	12.1
40 - 49%	12	7.6	8	5.1
30 - 39%	8	5.1	8	5.1
20 - 29%	6	3.8	14	8.9
10 - 19%	0	0	6	3.8
0 - 9%	14	8.9	11	7.0

reduced the number of students attending during the first week (8 - 10 pupils), 3. A general lack of time for planning programs between the supervisors and teachers-in-charge existed at the start.

II. The EHAB component.

A. Objective #1: "To determine if, as a result of participation in the program, 70 percent of the pupils master at least one instructional objective which prior to the program they did not master."

Table 9 summarizes the data obtained according to the percentage of students passing the pretest and the percentage of students passing the post-test. Both math and language scores are included. Regarding the specific goal of objective #1, 77% of the pupils post-tested mastered at least one math instructional objective, while 78% mastered at least one reading objective (see Table 13).

B. Objective #2: "To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives."

Table 10 reports the number of pupils not receiving a post-test categorized according to the number of objectives failed during pretesting. Also included is the number of students who were not pretested but whose name appeared on the Class Evaluation Report. Approximately 25% of the registrants participating in the program appear on this table under the math column, while 27% appear under the language column. The greatest majority of these students included in the table did not receive a pretest.

Table 11 reports the distribution of participants exhibiting mastery of objectives prior to instruction. The greatest percentage of students (63.4% for math, and 84.9% for reading) demonstrated 25%, or less, mastery of the tested objectives.

Table 12 summarizes by instructional objective the number and percentage of students achieving mastery during post-testing for both reading and math.

Table 13 reports the number of objectives mastered as a result of instruction.

Table 9

PERCENTAGE OF STUDENTS ORIGINALLY PASSING THE PRETEST AND THE PERCENTAGE PASSING THE POST-TEST AFTER INITIALLY FAILING THE PRETEST ACCORDING TO INSTRUCTIONAL OBJECTIVE IN THE EHAB COMPONENT'S MODIFICATION OF THE SDAT AND SDRT

Instructional Objective		Percentage passing pretest	Percentage only passing post-test
	Math		
1101	Preoperational concepts	42	68
1102	Whole numbers	33	50
1104	Decimal place value	36	53
1106	Real numbers	50	63
1107	Addition	29	75
1107.01	Addition: no regrouping	88	20
1107.02	Addition: with regrouping	61	71
1108	Subtraction	11	44
1108.01	Subtraction: no regrouping	54	75
1108.02	Subtraction: with regrouping	14	60
1109	Multiplication	9	21
1109.01	Multiplication: no regrouping	21	46
1109.03	Multiplication: two place	0	38
1109.04	Multiplication: three place	0	38
1110	Division	4	20
1110.01	Division: one place, no remainder	0	19
1110.03	Division: two place	0	9
1110.04	Division: three place	0	5

Table 9 (con't)

Instructional Objective		pretest	post-test
	Language		
2101	Letter recognition	0	75
2102	Initial consonants	15	61
2103	Medial consonants	0	0
2104	Final consonants	13	59
2105	Consonant blends	9	38
2106	Vowels: single letter	0	15
2107	Vowels: more than one letter	0	0
2108	Consonant digraphs	9	24
2109	Silent consnonants	5	21
2110	Rhyming words	0	50
2201	Compound words	0	11
2202	Contractions	0	13
2203	Endings	0	19
2204	Prefixes, suffixes, affixes	0	20
2205	Syllables	6	25
2305	Word meaning	8	42
2402	Classifying	0	100
2403	Inferences	0	100
2404	Facts and details	9	48
2405	Following directions	50	100
2406	Main ideas	0	100
2407	Picture clues	0	100

Table 9 (con't)

Instructional Objective		pretest	post-test
	Language (con't)		
2408	Drawing conclusions	3	8
2409	Sequence	0	100
SDRT	Reading comprehension total	10	20

Note. The number of students involved with each objective can be determined with information provided in Table 12.

Table 10

DISTRIBUTION OF PUPIL NON-MASTERY ON PRETEST AND NO POST-TEST FOLLOW UP

	Math Tests		Language Tests	
Number of Instructional Objectives Failed	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
15 or more				
13-14	1	2.2		
11-12	2	4.3	2	3.8
9-10	0	0	2	3.8
7-8	0	0	8	15.4
5-6	8	17.4	3	5.8
3-4	5	10.9	4	7.7
1-2	3	6.5	5	9.6
0	2	4.3	4	7.7
Not tested	25	54.3	24	46.2

Table 11

DISTRIBUTION OF PUPIL MASTERY OF INSTRUCTIONAL OBJECTIVE PRIOR TO INSTRUCTION

Math Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	4	2.8
51- 75%	19	13.1
26- 50%	30	20.7
0- 25%	92	63.4

Language Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	0	0
51- 75%	10	7.2
26- 50%	11	7.9
0- 25%	118	84.9

Table 12

DISTRIBUTION OF PUPIL MASTERY BY INSTRUCTIONAL OBJECTIVE AS A RESULT OF INSTRUCTION: THE RATIO OF PUPILS ACHIEVING MASTERY TO PUPILS ATTEMPTING MASTERY AND THE PERCENTAGE OF MASTERY

Instructional Objective		Ratio	Percentage
	Math		
1101	Preoperational concepts	27/40	67.5
1102	Whole numbers	3/6	50.0
1104	Decimal place value	26/49	53.1
1106	Real numbers	15/24	62.5
1107	Addition	41/55	74.5
1107.01	Addition: no regrouping	1/5	20.0
1107.02	Addition: with regrouping	12/17	70.6
1108	Subtraction	34/78	43.6
1108.01	Subtraction: no regrouping	15/20	75.0
1108.02	Subtraction: with regrouping	22/37	59.5
1109	Multiplication	10/48	20.8
1109.01	Multiplication: no regrouping	16/35	45.7
1109.03	Multiplication: two place	12/43	27.9
1109.04	Multiplication: three place	12/43	27.9
1110	Division	5/25	20.0
1110.01	Division: one place, no remainder	8/42	19.0
1110.03	Division: two place	4/43	9.3
1110.04	Division: three place	2/43	4.7

Table 12 (con't.)

Instructional Objective		Ratio	Percentage
	Language		
2101	Letter recognition	4/5	75.0
2102	Initial consonants	40/66	60.6
2103	Medial consonants	0/2	0
2104	Final consonants	38/65	58.5
2105	Consonant blends	18/48	37.5
2106	Vowels: single letter	3/20	15.0
2107	Vowels: more than one letter	0/2	0
2108	Consonant digraphs	12/51	23.5
2109	Silent consonants	8/38	21.1
2110	Rhyming words	1/2	50.0
2201	Compound words	1/9	11.1
2202	Contractions	1/8	12.5
2203	Endings	3/16	18.8
2204	Prefixes, suffixes, affixes	3/15	20.0
2205	Syllables	15/60	25.0
2305	Word meaning	23/55	41.8
2402	Classifying	4/4	100
2403	Inferences	4/4	100
2404	Facts and details	19/40	47.5
2405	Following directions	1/1	100
2406	Main ideas	6/6	100
2407	Picture clues	2/2	100

Table 12 (con't.)

Instructional Objective		Ratio	Percentage
	Reading (con't.)		
2408	Drawing conclusions	3/39	7.7
2409	Sequence	2/2	100
SDRT	Reading comprehension total	12/60	20

Table 13

DISTRIBUTION OF THE NUMBER OF INSTRUCTIONAL OBJECTIVES MASTERED AFTER INSTRUCTION

Math Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	33	23.1
1-2	74	51.7
3-4	19	13.3
5-6	16	11.2
7-8	1	0.7
9-10	0	0
11 or more	0	0

Language Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	31	22.3
1-2	75	54.0
3-4	31	22.3
5-6	2	1.4
7-8	0	0
9-10	0	0
11 or more	0	0

In the math test 23.1% mastered no objectives and only 25.2% mastered three or more objectives. In the reading test 22.3% mastered none, and only 23.7% mastered three or more.

Table 14 presents the distribution of the percentage of students achieving various levels of mastery. 54.6% achieved 50% or more of the objectives originally failed in the math test, and 49.6% achieved that amount in the language test.

C. Objective #3: "To determine the extent of which the program, as actually carried out, coincided with the program as described in the project proposal."

The component served the needs of the target population previously described. The EHAB component functioned well under capable supervisory leadership and the program, as implemented, coincided with the description in the proposal. There were, however, several drawbacks noted which affected efficiency and probably outcome at several of the instructional sites. These are as follows:

1. While the program's quality was good due to the performance by the dedicated teaching staff, judged to be good - excellent, the program services a very difficult target population. Even within this population there are distinct levels of handicap. The mixing of noncommunicable autistic children with non-autistic (as observed at one site) appeared to affect the training of the latter type. The degree of emotional outburst and lack of control of the autistic pupil seemed to reduce the probability of successful remediation in the nonautistic pupil.

2. As in the previous year, busing problems existed at virtually all the sites throughout the duration of the program. Bus drivers were reported to be disorganized and uncooperative.

3. Two teachers-in-charge recommended that better sites be chosen. One site was deemed unsafe due to gang activity and the harassment of pupils. Another maintained barely more than half their projected enrollment due to the extensive

Table 14

DISTRIBUTION OF PERCENTAGE OF PUPILS ACHIEVING LEVELS OF MASTERY OF INSTRUCTIONAL OBJECTIVES

Percentage of Mastery of Instructional Objectives (#Objectives Achieved) / (#Objectives Attempted)	Math Tests		Language Tests	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
90 - 100%	36	25.2	34	24.5
80 - 89%	3	2.1	1	0.7
70 - 79%	3	2.1	2	1.4
60 - 69%	21	14.7	20	14.4
50 - 59%	15	10.5	12	8.6
40 - 49%	9	6.3	5	3.6
30 - 39%	8	5.6	14	10.1
20 - 29%	11	7.7	11	7.9
10 - 19%	5	3.5	7	5.0
0 - 9%	32	22.4	33	23.7

excursion of their bus.

4. Money for supplies was short.

5. As in the previous year, many students were lost due to the indefiniteness of the program caused by late funding.

6. As in the past summer, testing continued to produce question because the selected testing method proved too difficult and too lengthy causing severe motivational problems. Furthermore, lack of an individual skilled in test diagnosis and teaching prescription rendered the task of defining individualized remedial treatment based on test outcome difficult.

III. The NI component.

A. Objective #1: "To determine if, as a result of participation in the program, 70 percent of the pupils master at least one instructional objective which prior to the program they did not master."

Table 15 summarizes the data according to the percentage of students passing the pretest and the percentage of students passing the post-test for both the math and reading test. Regarding the specific goal of objective #1, 85% of those students receiving a post-test mastered at least one math instructional objective, while 87% mastered at least one reading objective (see Table 19).

B. Objective #2: "To determine, as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives."

Table 16 reports the number of students not receiving a post-test. 9.8% of the initial registrants appear under the math column and 22% appear under the language column. It should be noted that many of the students reported in this table successfully mastered all the objectives tested in the pretest.

Table 17 reports the distribution of participants demonstrating mastery of the objectives prior to instruction. The greatest percentage of students (64.7% for math, and 71.9% for reading) mastered 25%, or less, of the objectives

Table 15

PERCENTAGE OF STUDENTS ORIGINALLY PASSING THE PRETEST AND THE PERCENTAGE PASSING THE POST-TEST AFTER INITIALLY FAILING PRETEST ACCORDING TO INSTRUCTIONAL OBJECTIVE IN THE NI COMPONENT'S MODIFICATION OF THE SDAT AND SDRT

Instructional Objectives		Percentage passing pretest	Percentage only passing post-test
	Math		
1101	Preoperational concepts	56	49
1106.01	Real number: sequence	28	30
1106.02	Real number: place value	12	37
1107.01	Addition: no regrouping	40	43
1107.02	Addition: with regrouping	26	17
1108.01	Subtraction: no regrouping	24	28
1108.02	Subtraction: with regrouping	8	12
1109.01	Multiply: no regrouping	9	6
1109.02	Multiply: with regrouping	7	6
1110.01	Division: one place, no remainder	6	5
1110.02	Division: one place, with remainder	2	2
	Reading		
2102	Initial consonants	12	54
2102.01	Initial consonants: with picture clue	40	53
2104	Final consonants	12	54
2104.01	Final consonants: with picture clue	8	19

Table 15 (con't.)

Instructional Objectives		Pretest	Post-test
2105	Consonant blends	14	35
2106	Vowels: single letter	14	50
2107	Vowels: more than one letter	14	50

Note. The number of students involved with each objective can be determined from information provided in Table 18.

Table 16

DISTRIBUTION OF PUPIL NON-MASTERY ON PRETEST AND NO POST-TEST FOLLOW UP

Number of Instructional Objectives Failed	Math Tests		Language Tests	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
15 or more				
13-14				
11-12	2	11.8		
9-10	5	29.4		
7-8	4	23.5	4	10.5
5-6	1	5.9	9	23.7
3-4	0	0	3	7.9
1-2	2	11.8	1	2.6
0	2	11.8	17	44.7
Not tested	1	5.9	4	10.5

Table 17

DISTRIBUTION OF PUPIL MASTERY OF INSTRUCTIONAL OBJECTIVE PRIOR TO INSTRUCTION

Math Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	7	4.5
51- 75%	10	6.4
26- 50%	38	24.4
0- 25%	101	64.7

Language Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	5	3.7
51- 75%	10	7.4
26- 50%	23	17.0
0- 25%	97	71.9

tested in the pretest.

Table 18 summarizes by instructional objective the number and percentage of students achieving mastery during post-testing for both reading and math.

Table 19 presents the number of objectives mastered after instruction. In the math test 14.7% mastered no objective, and only 21.2% mastered three or more. In the language test 12.6% mastered none and 41.5% mastered three or more.

Table 20 presents the distribution of the percentage of students achieving various levels of mastery. 10.8% of the students achieved 50% or more of the objectives originally failed in the math test and 42.9% achieved that amount in the language test.

C. Objective #3: "To determine the extent of which the program, as actually carried out, coincided with the program as described in the project proposal."

The component serviced the needs of the neurologically impaired and/or severely physically handicapped pupils. The NI component functioned smoothly and efficiently under capable and concerned supervision and leadership. It offered a solid teaching regimen coinciding directly with the program described in the proposal. A few wrinkles appeared but these did not affect the quality of teaching. They are as follows: 1. At two sites (PS 199M and IS 144X) there were bus schedule difficulties. At PS 18R the bus route was too long and produced late attendance. 2. Late funding affected the number of students participating in the program. Parents sent their children to private programs which were definitely scheduled. It also limited the availability of supplies. 3. Testing was a problem since it proved to be too difficult a level for many of the students, yet too easy for many others. 4. The need for more clinical staff was obvious. Availability of a nurse or trained health aide would be useful, especially since these children are prone to illness and have special toileting problems. The teachers were not skilled in the care of severely physically handicapped children. Many of the children experience speech

TABLE 18

DISTRIBUTION OF PUPIL MASTERY BY INSTRUCTIONAL OBJECTIVE AS A RESULT OF INSTRUCTION: THE RATIO OF PUPILS ACHIEVING MASTERY TO PUPILS ATTEMPTING MASTERY AND THE PERCENTAGE OF MASTERY

Instructional Objective		Ratio	Percentage
	Math		
1101	Preoperational concepts	33/68	48.5
1106.01	Real number: sequence	34/113	30.1
1106.02	Real number: place value	51/138	37.0
1107.01	Addition: no regrouping	40/94	42.6
1107.02	Addition: with regrouping	19/115	16.5
1108.01	Subtraction: no regrouping	33/119	27.7
1108.02	Subtraction: with regrouping	17/142	12.0
1109.01	Multiply: no regrouping	8/141	5.7
1109.02	Multiply: with regrouping	9/145	6.2
1110.01	Division: one place, no remainder	7/144	4.9
1110.02	Division: one place, with remainder	3/150	2.0
	Reading		
2102	Initial consonants	64/119	53.8
2102.01	Initial consonants: with picture clue	43/81	53.1
2104	Final consonants	64/119	53.8
2104.01	Final consonants: with picture clue	23/124	18.5

Table 18 (con't.)

Instructional Objective		Ratio	Percentage
2105	Consonant blends	40/114	35.1
2106	Vowels: single letter	58/115	50.4
2107	Vowels: more than one letter	58/115	50.4

Table 19

DISTRIBUTION OF THE NUMBER OF INSTRUCTIONAL OBJECTIVES MASTERED AFTER INSTRUCTION

Math Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	23	14.7
1-2	100	64.1
3-4	26	16.7
5-6	6	3.9
7-8	0	0
9-10	1	0.6
11 or more		

Language Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	17	12.6
1-2	62	45.9
3-4	34	25.2
5-6	20	14.8
7-8	2	1.5
9-10		
11 or more		

Table 20

DISTRIBUTION OF PERCENTAGE OF PUPILS ACHIEVING LEVELS OF MASTERY OF INSTRUCTIONAL OBJECTIVES

Percentage of Mastery of Instructional Objectives (#Objectives Achieved) / (#Objectives Attempted)	Math Tests		Language Tests	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
90 - 100%	6	3.8	25	18.5
80 - 89%	1	0.6	12	8.9
70 - 79%	0	0	8	5.9
60 - 69%	5	3.2	8	5.9
50 - 59%	5	3.2	5	3.7
40 - 49%	7	4.5	11	8.1
30 - 39%	16	10.3	8	5.9
20 - 29%	23	14.7	26	19.3
10 - 19%	43	27.6	16	11.9
0 - 9%	50	32.1	16	11.9

problems but there was no speech therapist. Also, since many of these pupils were homebound during the regular school year, the new situation produced some behavioral difficulties and/or adjustment problems. 5. Last summer, the previous evaluator pointed out that several children had been excluded from the program. The same condition occurred this year because there was no conveniently located center for those pupils residing in north Queens.

IV. The TTI component.

A. Objective #1: "To determine if, as a result of participation in the program, 70 percent of the pupils master at least one instructional objective which prior to the program they did not master."

Table 21 summarizes the data according to the percentage of students passing the pretest and the percentage of students passing the post-test for both the math and reading test. Regarding the specific goal of objective #1, 78% of those students receiving a post-test mastered at least one math objective, 61% mastered at least one reading objective (see Table 25).

B. Objective #2: To determine as a result of participation in the program, the extent to which pupils demonstrate mastery of instructional objectives."

Table 22 reports the number of students not receiving a post-test. 15.9% of the initial registrants appear under the math column and 25% appear under the language column.

Table 23 reports the distribution of participants demonstrating mastery of the objectives prior to instruction.

Table 24 summarizes by instructional objective the number and percentage of students achieving mastery during post-testing for both reading and math.

Table 25 presents the number of objectives mastered as a result of instruction. In the math test, 21.6% mastered no objective and only 13.5% mastered three or more. In the reading test 39.4% mastered none and 30.3% mastered three or more.

Table 26 presents the distribution of the percentage of students achieving

Table 21

PERCENTAGE OF STUDENTS ORIGINALLY PASSING THE PRETEST AND THE PERCENTAGE PASSING THE POST-TEST AFTER INITIALLY FAILING PRETEST ACCORDING TO INSTRUCTIONAL OBJECTIVE IN THE TTI COMPONENT'S MODIFICATION OF THE SDAT AND SDRT

Instructional Objective		Percentage passing pretest	Percentage only passing post-test
	Math		
1101	Preoperational concepts	54	77
1106.01	Real number: sequence	46	65
1106.02	Real number: place number	8	27
1107.01	Addition: no regrouping	66	27
1107.02	Addition: with regrouping	48	0
1108.01	Subtraction: no regrouping	65	50
1108.02	Subtraction: with regrouping	22	7
1109.01	Multiplication: no regrouping	35	22
1109.02	Multiplication: with regrouping	25	33
1110.01	Division: one place, no remainder	0	29
1110.02	Division: one place, with remainder	0	33
	Reading		
2102	Initial consonants	27	54
2102.01	Initial consonants: with picture clue	94	100
2104	Final consonants	27	54
2104.01	Final consonants: with picture clue	7	15

Table 21 (con't.)

Instructional Objective		pretest	post-test
2105	Consonant blends	38	25
2106	Vowels: single letter	58	57
2107	Vowels: more than one letter	58	57

Note. The number of students involved with each objective can be determined with information provided in Table 24.

Table 22

DISTRIBUTION OF PUPIL NON-MASTERY ON PRETEST AND NO POST-TEST FOLLOW UP

	Math Tests		Language Tests	
Number of Instructional Objectives Failed	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
15 or more				
13-14				
11-12				
9-10				
7-8	1	14.3	1	9.1
5-6	0	0	1	9.1
3-4	2	28.6	2	18.2
1-2	1	14.3	0	0
0	0	0	1	9.1
Not tested	3	42.9	6	54.5

Table 23

DISTRIBUTION OF PUPIL MASTERY OF INSTRUCTIONAL OBJECTIVE PRIOR TO INSTRUCTION

Math Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	3	8.1
51- 75%	6	16.2
26- 50%	15	40.5
0- 25%	13	35.1

Language Tests

Percentage of Mastery of Instructional Objectives	Number of Pupils	Percentage of Pupils
76-100%	5	15.2
51- 75%	8	24.2
26- 50%	8	24.2
0- 25%	12	36.4

Table 24

DISTRIBUTION OF PUPIL MASTERY BY INSTRUCTIONAL OBJECTIVE AS A RESULT OF INSTRUCTION: THE RATIO OF PUPILS ACHIEVING MASTERY TO PUPILS ATTEMPTING MASTERY AND THE PERCENTAGE OF MASTERY

Instructional Objective		Ratio	Percentage
	Math		
1101	Preoperational concepts	13/17	76.5
1106.01	Real number: sequence	13/20	65.0
1106.02	Real number: place number	5/22	22.7
1107.01	Addition: no regrouping	3/11	27.3
1107.02	Addition: with regrouping	0/14	0
1108.01	Subtraction: no regrouping	4/8	50.0
1108.02	Subtraction: with regrouping	1/14	7.1
1109.01	Multiplication: no regrouping	2/9	22.2
1109.02	Multiplication: with regrouping	2/6	33.3
1110.01	Division: one place, no remainder	2/7	28.6
1110.02	Division: one place, with remainder	1/3	33.3
	Reading		
2102	Initial consonants	13/24	54.2
2102.01	Initial consonants: with picture clues	2/2	100
2104	Final consonants	13/24	54.2
2104.01	Final consonants: with picture clues	3/20	15.0
2105	Consonant blends	5/20	25.0
2106	Vowels: single letter	8/14	57.1
2107	Vowels: more than one letter	8/14	57.1

Table 25

DISTRIBUTION OF THE NUMBER OF INSTRUCTIONAL OBJECTIVES MASTERED AFTER INSTRUCTION

Math Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	8	21.6
1-2	24	64.9
3-4	5	13.5
5-6		
7-8		
9-10		
11 or more		

Language Tests

Number of Instructional Objectives Mastered	Number of Pupils	Percentage of Pupils
None	13	39.4
1-2	10	30.3
3-4	9	27.3
5-6	1	3.0
7-8		
9-10		
11 or more		

Table 26

DISTRIBUTION OF PERCENTAGE OF PUPILS ACHIEVING LEVELS OF MASTERY OF INSTRUCTIONAL OBJECTIVES

Percentage of Mastery of Instructional Objectives (#Objectives Achieved) (#Objectives Attempted)	Math Tests		Language Tests	
	Number of Pupils	Percentage of Pupils	Number of Pupils	Percentage of Pupils
90 - 100%	2	5.4	4	12.1
80 - 89%	0	0	3	9.1
70 - 79%	2	5.4	0	0
60 - 69%	4	10.8	4	10.8
50 - 59%	5	13.5	4	12.1
40 - 49%	1	2.7	1	3.0
30 - 39%	6	16.2	0	0
20 - 29%	8	21.6	4	12.1
10 - 19%	1	2.7	0	0
0 - 9%	8	21.6	13	39.4

various levels of mastery. 35.1% of the students achieved 50% or more of the objectives originally failed in the math test and 44.1% achieved that amount in the reading test.

C. Objective #3: "To determine the extent of which the program, as actually carried out, coincided with the program as described in the project proposal."

The demonstration classes of the Teacher Training Institute served the needs of its two target populations -- emotionally handicapped children and neurologically impaired. Furthermore, it served the needs of the teacher trainees. The component functioned smoothly under able leadership and coincided with the program described in the proposal. There were just a few drawbacks: 1. Late funding produced loss of students crucial to the purposes of the training institute and caused lack of supplies during the early part of the program, 2. Busing was a consistent problem, 3. The TTI supervisor, by dint of her central location in the principal's office and not by choice, was forced into a role of building coordinator, trouble-shooter and liaison with bus drivers, target for evaluators of other programs, and other-problem-solver in general. All of these detract from her time which should be directed to her primary role, 4. While teacher trainees were not polled directly, observations made at the site suggest that the program fulfills the requirements of the proposal; however, the underenrollment of students in the demonstration classes decreases the opportunity for them to work directly with the children.

IV. Summary of Major Findings, Conclusions, and Recommendations

With regard to the points covered by the evaluation objectives, it is clear that more than 70% of the pupils mastered at least one objective. Indeed, the majority of the students mastered more. The amount of successful remediation varied greatly in terms of the number of the instructional objectives which were

attained by each pupil in the program. However, it is clear that the achievement of at least one to four objectives generally can be expected over the duration of the summer program. It is the judgement of the present evaluator that greater success is possible, that is, more pupils can attain more objectives.

The mastery of objectives is a function of several variables. Some of the important ones appear to be the type of microskills tested by the diagnostic instrument, the interpretation of the test result and the planning of remedial treatment of the individual, and a reasonable amount of time for the implementation of the treatment. The operation of these variables in the summer program was obvious.

Based on the foregoing, the following recommendations are made:

1. Criterion reference tests are a relatively new approach to remedial programs such as the present one. The availability, quality, and utility for the published tests is not clear. Consequently, few teachers are sophisticated enough to choose, use, and interpret a test adequately for their purposes. The problem is further compounded by the fact that the target population here was a handicapped one, bringing with it a unique set of difficulties to the test situation. It is recommended that, at the state level, guidelines be developed for the use of the available tests for this particular population. Another alternative would be to develop at the state level a diagnostic instrument geared to the requirements of the SED classification system of instructional objectives.

2. It is recommended that each component have as part of its staff an individual (or individuals) sophisticated in the use of criterion-referenced tests for the purposes of interpretation of test results, the planning of prescriptive measures, and the advising of teachers in the matter of treatment plans.

3. It is further recommended that attempts be made at solving the problem of late funding. Virtually a full week, if not more, is lost by many of the

participants. In addition to recruitment difficulties, many administrative hassles must be solved at a time when one might expect that the goals of the problem could be in the process of realization. Moreover, the effectiveness of the testing program, the development of appropriately individualized teaching plans (or group plans), and actual instruction is delayed; all of which directly undermine the success of the program.

Other recommendations can be made: 1. Review the transportation situation to determine how to improve the efficiency of the system from the school's side. 2. Better sites be located for the EHAB classes which were held at PS 127X and PS 242K. 3. Have two sites in Queens for the NI component and two sites in Richmond for the EHAB component. 4. The separation of noncommunicable autistic children, prone to emotional outburst, from those children which have a greater chance of successful remediation. 5. A speech therapist and nurse (or at least a health aide) be made available to the NI component. 6. A central depository for materials which can be saved and used the following year should be located in order to help offset the problem of insufficient funds for supplies.

In closing, the summer program was clearly successful in providing needed instruction for Title I handicapped children as determined by both hard data and the judgement of the evaluator. The above recommendations are meant to be positive and constructive points to enhance that success. The evaluator's final recommendation is that the program be recycled for next year.

Program Abstract

The Summer Program in Reading and Mathematics for Handicapped Pupils in Special Education Classes, Function No. 09-61625(a), aimed to maintain and to improve these skills through individualized and small group instruction. Initial diagnostic testing using criterion-referenced tests indicated those basic skills in which a participant would benefit by improvement. These target areas were subjected to a prescriptive multi-modal teaching method involving a wide range of materials and techniques. To determine the extent of successful remediation, pupils were later retested. For each of the four components involved- NIEH, EHAB, NI, and TTI- it was found, in respective order, that 91%, 77%, 85%, and 78% of the students mastered at least one math objective and 93%, 78%, 87%, and 61% mastered at least one language objective. Furthermore, the results indicated that in either category the majority of participants could obtain from one to four instructional objectives.

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM

(attach to MIR, item #30) Function #_____

2

In this table enter all Data Loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed		(6) Reasons why students were not tested, or if tested, were not analyzed	
						N	%		Number/ Reason
6 0 8 1 3	7 2 0	13	SDRT-I	130	106	24	18.5	absent for pretest or post-test	10
								passed all items tested in pretest	2
								Test, or situation, too difficult	12
6 0 8 1 4	7 2 0	14	SDRT-I	185	138	47	25.4	absent for pretest or post-test	26
								passed all items in pretest	17
								test, or situation too difficult	4
6 0 8 1 5	7 2 0	15	SDRT-I	22	20	2	10.0	absent for pretest or post-test	2

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
(3) Number of participants in the activity.
(4) Number of participants included in the pre and posttest calculations found on item #30.
(5) Number and percent of participants not tested and/or not analyzed on item #30.
(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

3

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM
(attach to MIR, item #30) Function #_____

In this table enter all Data Loss information. Between MIR, item #30 and this form, all participants in each activity must be accounted for. The component and activity codes used in completion of item #30 should be used here so that the two tables match. See definitions below table for further instructions.

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed N	(5) %	(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
60814	720	14	SDRT-II	55	38	17	30.9	absent during pretest or posttest	15
								testing status unclear —	2
60861	720	61	Tobe-K Tobe-L PRI-A	234	157	77	32.9	absent at post-test - left program	77
60961	720	61	Tobe-K Tobe-L	231	153	78	33.8	absent at post-test - left program	77
								testing status unclear	1

(1) Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.
(2) Identify the test used and year of publication (MAT-70, SDAT-74, etc.).
(3) Number of participants in the activity.
(4) Number of participants included in the pre and posttest calculations found on item#30.
(5) Number and percent of participants not tested and/or not analyzed on item#30.
(6) Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

79

78

3/75

Summer Teacher Training Institute
P.S. 199 M - 270 West 70th Street
New York, N. Y. 10023

Function # 09 61625 - Summer 1975

BEHAVIORAL OBJECTIVES IN MATH BASED ON THE STANFORD DIAGNOSTIC ARITHMETIC TEST (Level 1 - (Form X and W)

STATE CODE

1101	1.	Demonstrates ability to match numerals with a pictorial representation. (3/4 = mastery)(Test 1, part A, items 1-4)
1106.01	2.	Demonstrates the ability to complete a sequence of numbers which increases by equal increments. (5/7 = mastery)(Test 1, part A, items 5,6,13,14,15,17,19)
1106.02	3.	Demonstrates the knowledge of place value by recording numerals in the appropriate places. (3/4 = Mastery) (Test 1, part C, items 1-4)
1107.01	4.	Demonstrates the ability to add two-place numbers without re-grouping. (2/3 = mastery) (Test 2, Part A, items 1-3)
1107.02	5.	Demonstrates the ability to add two and three-place numbers with re-grouping. (4/6 = Mastery) (Test 2, part A, items 4-9)
1108.01	6.	Demonstrates the ability to subtract two and three-place numbers without re-grouping. (4/6 = Mastery) (Test 2, part B, items 1-6)
1108.02	7.	Demonstrates the ability to subtract two and three-place numbers with re-grouping. (4/6 = Mastery) (Test 2, part B, items 7-12)
1109.01	8.	Demonstrates the ability to multiply without re-grouping. (4/6 = Mastery) (Test 2, part C, items 1-6)
1109.02	9.	Demonstrates the ability to multiply with re-grouping. (4/6 = Mastery) (Test 2, part C, items 7-12)
1110.01	10.	Demonstrates the ability to divide one-place divisors with no remainder. (4/6 = Mastery) (Test 2, part D, items 1-6)
1110.02	11.	Demonstrates the ability to divide one-place divisors with a remainder (4/6 = Mastery) (Test 2, part D, items 7-12)

Summer Teacher Training Institute
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Function # 09 61625 - Summer 1975

BEHAVIORAL OBJECTIVES
IN READING BASED ON THE
STANFORD DIAGNOSTIC READING
TEST - (Level 1, Form X & W)

STATE CODE

2101 + 2104 1. Demonstrates the ability to identify common sounds in initial and final positions (11/15 = Mastery)
(Form X + W (Test 3, items 1-16)

2102.01 2. Demonstrates the ability to match initial consonant graphemes with picture clues (Form X + W, 1 = Mastery)
Form X (Test 5, part A, item 3)
Form W (Test 5, part A, item 1)

2106 + 2107 3. Demonstrates the ability to match initial vowel graphemes with picture clues
Form X (4/5 = Mastery)
Form W (3/4 = Mastery)

Form X (Test 5, part A, items 1,5,7,10,11)
Form W (Test 3, items 3, 10, 13, 15)

2105 4. Demonstrates the ability to match blend graphemes with picture clues

Form X (5/7 = Mastery)
Form W (8/11 = Mastery)

Form X (Test 5, part A, items 2,4,6,8,12,15,16)
Form W (Test 5, items 2,4,5,6,8,9,10,13,15,16,17)

2104.01 5. Demonstrates the ability to match final letter graphemes with picture clues
(Form X + W (13/18 = Mastery)
(Form X + W (Test 5, part B, item 1-18)

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
1101	Preoperational concepts	Nor. Bruner CSDMT-Teacher criterion referenced	J	60913	H	31	57	38	19
1102	Whole numbers	"	"	"	"	0	2	2	0
1104	Dec place value	"	"	"	"	0	7	2	5
1106	Real numbers	"	"	"	"	4	1	1	0
1106.01	Real number: sequence	"	"	"	"	10	62	17	45
1106.02	Real number: place value	"	"	"	"	2	63	11	52
1107	Addition	"	"	"	"	5	15	14	1
1107.01	Addition: no regrouping	"	"	"	"	10	58	24	34
1107.02	Addition: with regrouping	"	"	"	"	6	58	2	56
1108	Subtraction	"	"	"	"	1	25	11	14
1108.01	Subtraction: no regrouping	"	"	"	"	6	56	9	47
1108.02	Subtraction: with regrouping	"	"	"	"	1	57	1	56
1109	Multiplication	"	"	"	"	9	15	3	12
1109.01	Multiply: w/o regrouping	"	"	"	"	2	54	0	54
1109.02	Multiply: with regrouping	"	"	"	"	1	53	0	53
1110	Division	"	"	"	"	0	3	0	3

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
1110.01	Division: 1 place w/o remainder	Har., Br., Ller (SDMT - Teacher	I	60913	H	1	53	1	52
1110.02	Division: 1 place w/ remainder	criterion referenced)	"	"	"	0	54	0	54
1101	Pre operational concepts	Har., Br., Ller (SDMT - Teacher	I	60914	H	14	52	28	24
1102	Whole numbers	criterion referenced)	"	"	"	2	4	1	3
1104	Decimal place value	"	"	"	"	0	24	13	11
1106.01	Real number: sequence	"	"	"	"	47	62	28	34
1106.02	Real number place value	"	"	"	"	17	86	41	45
1107	Addition	"	"	"	"	11	38	25	13
1107.01	Addition: no regrouping	"	"	"	"	66	42	16	26
1107.02	Addition: with regrouping	"	"	"	"	44	63	15	48
1108	Subtraction	"	"	"	"	7	47	19	28
1108.01	Subtraction no regrouping	"	"	"	"	43	62	23	39
1108.02	Subtraction: with regrouping	"	"	"	"	15	87	13	74
1109	Multiplication	"	"	"	"	3	29	6	23
1109.01	Multiplying: no regrouping	"	"	"	"	17	85	6	79

30. **Criterion Referenced Test Results: (summary of MIR form tabulation)**

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
1109.02	Multiply: with regrouping	Har., Br., Wc: (SDMT - Teacher) (Criterion) reference	I	60914	H	10	17	8	79
1110	Division	"	"		"	0	19	3	16
1110.01	Division - 1 place no remainder	"	"	"	"	1	87	5	82
1110.02	Division -- 1 place with remainder	"	"	"	"	3	87	3	84
1101	Pre operational concepts	Har, Br, Wc (SDMT - Teacher (Criterion Reference)	I	60915	H	10	7	2	5
1104	Decimal place value	"	"	"	"	0	2	1	1
1106.01	Real number sequence	"	"	"	"	3	9	2	7
1106.02	Real number place value	"	"	"	"	1	11	3	8
1107	Addition	"	"	"	"	6	2	2	0
1107.01	Addition: no regrouping	"	"	"	"	7	5	3	2
1107.02	Addition: with regrouping	"	"	"	"	4	8	2	6
1108	Subtraction	"	"	"	"	2	6	4	2
1108.01	Subtraction no regrouping	"	"	"	"	3	7	5	4
1108.02	Subtraction with regrouping	"	"	"	"	0	12	4	8
1109	Multiplication	"	"	"	"	2	4	1	3

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
1109.01	Multiplication: no regrouping	Har., Br., Wor., (SDMT - Teacher criterion reference)	I	60915	H	1	11	4	7
1109.02	Multiplication: with regrouping	"	"	"	"	1	11	3	8
1110	Division	"	"	"	"	1	4	2	2
1110.01	Division - 1 place no remainder	"	"	"	"	1	11	3	8
1110.02	Division - 1 place with remainder	"	"	"	"	0	12	1	11
1101	Preoperational concepts	Har., Br., Wor. (SDMT - Teacher criterion reference)	II	60913	H	0	2	1	1
1104	Decimal place value	"	"	"	"	1	1	1	0
1106	Real number system	"	"	"	"	1	1	1	0
1107.01	Addition: no regrouping	"	"	"	"	2	0	0	0
1107.02	Addition: with regrouping	"	"	"	"	2	0	0	0
1108.01	Subtraction: no regrouping	"	"	"	"	2	0	0	0
1108.02	Subtraction: with regrouping	"	"	"	"	0	2	1	1
1109.01	Multiplication: no regrouping	"	"	"	"	0	2	0	2
1109.03	Multiplication: 2 places	"	"	"	"	0	2	0	2
1109.04	Multiplication: 3 places	"	"	"	"	0	2	0	2

30. **Criterion Referenced Test Results: (summary of MIR form tabulation)**

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
1110.01	Division: 1 place no remainder	Har., Br., Mor. (SDMT Teacher criterion referenced)	II	60913	H	0	2	0	2
1110.03	Division 2 place	"	"	"	"	0	2	0	2
1110.04	Division 3 place	"	"	"	"	0	2	0	2
1101	Preoperational concepts	Har., Br., Mor (SDMT Teacher Criterion referenced)	II	60914	H	24	16	3	13
1104	Decimal/place value	"	"	"	"	25	15	9	6
1106	Real number system	"	"	"	"	19	21	12	9
1107.01	Addition: no regrouping	"	"	"	"	35	5	1	4
1107.02	Addition with regrouping	"	"	"	"	23	17	12	5
1108.01	Subtraction: no regrouping	"	"	"	"	20	20	15	5
1108.02	Subtraction: with regrouping	"	"	"	"	6	34	20	14
1109.01	Multiplication: no regrouping	"	"	"	"	9	31	15	16
1109.03	Multiplication: 2 place	"	"	"	"	0	40	12	28
1109.04	Multiplication 3 place	"	"	"	"	0	40	12	28
1110.01	Division: 1 place no remainder	"	"	"	"	0	40	8	32
1110.03	Division 2 place	"	"	"	"	0	40	4	36

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
1110.04	Division 3 place	Har, Br, Wor (SDRT Teacher Criterion Reference)	II	60917	-	0	40	2	38
1101	Preoperational concepts	Har., Br., Wor. (SDRT - Teacher Criterion Reference)	II	60915	H	0	1	1	0
1104	Decimal place value	"	"	"	"	1	0	0	0
1106	Real number system	"	"	"	"	0	1	1	0
1107.01	Addition no regrouping	"	"	"	"	1	0	0	0
1107.02	Addition with regrouping	"	"	"	"	1	0	0	0
1108.01	Subtraction no regrouping	"	"	"	"	1	0	0	0
1108.02	Subtraction with regrouping	"	"	"	"	0	1	1	0
1109.01	Multiplication: no regrouping	"	"	"	"	0	1	1	0
1109.03	Multiplication: 2 place	"	"	"	"	0	1	0	1
1109.04	Multiplication: 3 place	"	"	"	"	0	1	0	1
1110.03	Division 2 place	"	"	"	"	0	1	0	1
1110.04	Division 3 place	"	"	"	"	0	1	0	1
2101	Letter recognition	Har, Br., Wor. (SDRT Teacher Criterion Reference)	I	60813	H	0	3	3	0

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils		Posttest No. of Pupils	
						Passing (1)	Failing (2)	from Col.2 Passing	from Col.2 Failing
2102	Initial consonants	Harr, Bi Iver; SDRT - Teacher Criterion Referenced	I	60813	H	11	92	44	48
2102.01	Initial consonants w/ picture clue	"	"	"	"	28	37	18	19
2103	Medial consonants	"	"	"	"	0	2	0	2
2104	Final consonants	"	"	"	"	11	90	40	50
2104.01	Final consonants w/ picture clue	"	"	"	"	3	57	7	50
2105	Consonant blends	"	"	"	"	8	78	19	59
2106	Vowels: single letter	"	"			9	68	26	42
2107	Vowels: more than one letter	"	"	"	"	9	59	26	33
2108	Consonant digraphs	"				0	13	1	12
2201	Compound words	"	"	"	"	0	6	0	6
2202	Contractions	"	"	"	"	0	6	0	6
2203	Endings	"	"	"	"	0	11	0	11
2204	Prefixes, Suffixes and Affixes		"	"	"	0	10	0	10
2205	Syllables	"	"	"	"	0	16	7	9
2402	Classifying	"	"	"	"	0	3	3	0
2403	Inferences	"	"	"	"	0	3	3	0

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils		Posttest No. of Pupils	
						Passing (1)	Failing (2)	from Col.2 Passing	from Col.2 Failing
2404	Facts and details	Harr. Brace Jov. (SDAT Inst. Criterion Ref.)	I	6C&13	14	0	3	3	0
2405	Following directions	"	"	"	"	1	1	1	0
2406	Main ideas	"	"	"	"	0	5	5	0
2407	Picture clues	"	"	"	"	0	2	2	0
2409	Sequence	"	"	"	"	0	2	2	0
	Reading Comprehension Total	"	"	"	"	3	8	2	6
2101	Letter recognition	Harr. Brace Jov. (SDAT - Inst. Criterion Ref. Inv.)	I	6C&14	4	0	2	1	1
2102	Initial consonants	"	"	"	"	33	101	63	38
2102.01	Initial consonants with picture clue	"	"	"	"	52	37	23	14
2104	Final consonants	"	"	"	"	23	101	64	37
2104.01	Final consonants with picture clue	"	"	"	"	7	82	18	64
2105	Consonant blends	"	"	"	"	27	92	38	54
2106	Vowels: single letter	"	"	"	"	28	69	38	31
2107	Vowels: more than one letter	"	"	"	"	25	61	36	25
2108	Consonants digraphs	"	"	"	"	0	3	2	1

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
2110	Rhyming words	Har. Bk. with IDRT Teacher Criterion Referenced	I	60814	H	0	2	1	1
2201	Compound words	"	"	"	"	0	3	1	2
2202	Contractions	"				0	2	1	1
2203	Endings					0	5	3	2
2204	Prefixes, suffixes and affixes	"	"	"	"	0	5	3	2
2205	Syllables	"	"	"	"	1	3	0	3
2305	Word meanings	"	"	"	"	0	7	5	2
2402	Classifying	"	"	"	"	0	1	1	0
2403	Inferences	"	"	"	"	0	1	1	0
2404	Facts and details	"	"	"	"	0	1		0
2406	Main ideas	"	"	"	"	0	1	1	0
	Reading Comprehension total	"	"	"	"	1	12	4	6
2102	Initial consonants	Har. Bk. 2 of IDRT Teacher Criterion Ref.	I	60815	H	3	16	10	6
2102.01	Initial consonants of picture clue	"	"	"	"	3	9	4	5
2104	Final consonants	"	"			1	17	11	6

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
2104.01	Final consonants w/ picture clue	[illegible]	I	6.0.S.15	H	2	16	1	9
2105	Consonant blends	"	"	"	"	2	12	6	6
2104	Vowels single letter	"	"	"	"	1	12	5	7
2107	Vowels more than one letter	"	"	"	"	1	11	4	7
2205	Syllables	"	"	"	"	0	4	1	3
2305	Word meaning	"	"	"	"	1	3	3	0
	Reading Comprehension total	"	"	"	"	3	4	3	1
2108	Consonant digraphs	[illegible]	II	6.0.S.13	H	0	1	0	1
2109	Silent consonants	"	"	"	"	0	1	0	1
2205	Syllables	"	"	"	"	0	1	0	1
2305	Word meaning	"	"	"	"	0	1	0	1
2404	Facts and details	"	"	"	"	0	1	0	1
2408	Drawing conclusions	"	"	"	"	0	1	0	1
	Reading Comprehension total	"	"	"	"	0	1	0	1

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils		Posttest No. of Pupils	
						Passing	Failing	from Col.2 Passing	from Col.2 Failing
						(1)	(2)		
2108	Consonant digraphs	Harr. Br. Wor. (SORT - Teacher Criterion Referenced)	II	60814	H	5	33	9	24
2109	Silent consonants	"	"	"	"	2	36	8	28
2205	Syllables	"	"	"	"	3	35	7	28
2305	Word meaning	"	"	"	"	4	34	14	20
2404	Facts and details	"	"	"	"	4	34	14	20
2408	Drawing Conclusions	"	"	"	"	1	37	3	34
	Reading Comprehension total	"	"	"	"	2	36	3	33
2108	Consonants digraph	Harr. Br. Wor. (SORT - Teacher Criterion Ref.)	II	60815	H	0	1	0	1
2109	Silent consonants					0	1	0	1
2205	Syllables	"	"	"	"	0	1	0	1
2305	Word meaning	"	"	"	"	0	1	0	1
2404	Facts and details	"	"	"	"	0	1	0	1
2408	Drawing Conclusions	"	"	"	"	0	1	0	1
	Reading Comprehension totals	"	"	"	"	0	1	0	1

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	1. Comparatives	CTB/ McGraw H, H (TOBE)	K	60861	H	32	2	2	0
	2. Negative class inclusion	"	"	"	"	32	2	2	0
	3. Position terms	"	"	"	"	32	2	1	1
	4. Past tense	"	"	"	"	7	27	18	9
	5. Communication	"	"	"	"	25	9	5	4
	6. Symbol decoding - terms	"	"	"	"	30	4	3	1
	7. Position -- terms	"	"	"	"	16	18	14	4
	8. Negative class inclusion	"	"	"	"	27	7	6	1
	9. Position -- terms	"	"	"	"	30	4	3	1
	10. Contextual meaning	"	"	"	"	28	6	4	2
	11. Negative class inclusion	"	"	"	"	29	5	3	2
	12. Plurals/ class inclusion	"	"	"	"	31	3	3	0
	13. Position -- terms	"	"	"	"	29	5	4	1
	14. Position -- terms	"	"	"	"	29	5	4	1
	15. Future tense: logic	"	"	"	"	26	8	3	0
	* Reading Readiness: Proper book position	"	"	"	"	16	18	12	6

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	17. Recognition symbols letters vs numerals	CTB / McGraw-Hill (TOBE)	K	60861	H	27	7	4	3
	18. Phonemes	"	"	"	"	31	3	0	3
	19. Position -- terms	"	"	"	"	26	8	2	6
	20 Recognition symbols: letter vs. non-letter	"	"	"	"	22	12	8	4
	21. Reading readiness. missing component	"	"	"	"	29	5	4	1
	22. Reading readiness rhyming	"	"	"	"	19	15	9	6
	23 Reading readiness matching	"	"	"	"	26	8	8	0
	24 Reading readyness: rhyming	"	"	"	"	18	16	10	6
	25. Reading readiness: matching	"	"	"	"	27	7	5	2
	26. Double comparatives logic	"	"	"	"	30	4	1	3
	27 Phonemes	"	"	"	"	21	13	6	7
	28. Contextual meaning	"	"	"	"	29	5	2	3
	1a. Negative class inclusion	CTB / McGraw-Hill (TOBE)	L	60861	H	76	1	1	0
	1b. Contextual meaning	"	"	"	"	54	23	11	12
	1c. Position -- terms	"	"	"	"	71	6	4	2

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	3a. Listening: sentence subject	CTB/ McGraw-Hill (TOBE)	L	6086	H	74	3	2	1
	3A Relating phonemes to letters	"	"	"	"	68	9	4	5
	3b. Contextual meaning	"	"	"	"	71	6	3	3
	4a. Contextual meaning	"	"	"	"	68	9	6	3
	4b. Double class inclusion: logic	"	"	"	"	64	13	10	3
	5a. Position: terms	"	"	"	"	72	5	4	1
	5b. Class inclusion: terms/logic	"	"	"	"	73	4	3	1
	6a. Listening/ subject/verb relations	"	"	"	"	49	28	15	13
	6b Symbol decoding/ terms	"	"	"	"	46	31	19	12
	7a. Sound-- letter relationships	"	"	"	"	61	16	12	4
	7b. Letter discrimination- perception	"	"	"	"	57	20	13	7
	8a. Symbol decoding-- terms	"	"	"	"	34	43	27	16
	8b. Future tense - logic	"	"	"	"	57	20	11	9
	9a. Perception -- logic	"	"	"	"	73	4	4	0
	9b. Negative class inclusion	"	"	"	"	64	13	7	6
	10a. Phonemes	"	"	"	"	59	18	12	6

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	10a Listening/adverb	CTB McGraw Hill (TCBE)	L	6C861	H	30	47	27	20
	11a Reading readiness: punctuation	"	"	"	"	46	31	13	18
	11B Contextual meaning	"	"	"	"	45	32	19	13
	12a Position terms	"	"	"	"	67	9	5	4
	12b Phonemes	"	"	"	"	64	13	8	5
	13a Position terms	"	"	"	"	54	23	13	10
	13b Reading readiness: rhyming	"	"	"	"	32	45	21	24
	14a. Class inclusion terms/logic	"	"	"	"	59	18	9	9
	14b Letter recognition terms	"	"	"	"	46	31	13	8
	1 Quantity	CTB McGraw Hill (TCBE)	K	6C961	H	76	5	4	1
	2 Terms/position	"	"	"	"	27	4	3	1
	3 Geometric shapes	"	"	"	"	29	2	2	0
	4 Geometric terms	"	"	"	"	28	3	3	0
	5 Counting	"	"	"	"	26	5	4	1
	6 Geometric shapes/classes	"	"	"	"	27	4	2	2

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	7. Terms - half	CTB McGraw-Hill (TOBE)	K	60961	H	16	15	14	1
	8 Counting-logic	"	"	"	"	26	5	4	1
	9 Terms - pair	"	"	"	"	26	5	4	1
	10 Clock-reading Terms	"	"	"	"	20	11	8	3
	11. Geometric Terms	"	"	"	"	24	7	5	2
	12. Terms - dozen	"	"	"	"	24	7	5	2
	13 Relative capacity	"	"	"	"	25	6	3	3
	14. Terms - small	"	"	"	"	27	4	4	0
	15 Checkreading - Terms	"	"	"	"	26	5	3	2
	16. Coin identification; values	"	"	"	"	13	18	11	7
	17 Relating numerals to objects	"	"	"	"	27	4	3	1
	18. Measuring: Thermometers	"	"	"	"	18	13	10	3
	19. Terms/ whole-part	"	"	"	"	22	9	8	1
	20. Terms - same	"	"	"	"	22	9	8	1
	21 Terms - few	"	"	"	"	12	19	14	5
	22. Relative weights	"	"	"	"	23	8	6	2

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	23 Relating numbers to objects	CTB/McGraw Hill (TCRE)	K	6C961	H	18	13	12	1
	24. Class inclusion	"	"	"	"	13	18	11	7
	25 Measurement -- length	"	"	"	"	9	22	14	8
	26 Coin identification / money values	"	"	"	"	17	14	10	4
	27 Quantity in volume	"	"	"	"	23	8	7	1
	28 Terms -- specific quantity	"	"	"	"	18	13	6	7
	1a. Relative size	CTB/McGraw H. (TCRE)	L	6C961	H	121	2	1	1
	1b Terms -- empty	"	"	"	"	120	6	4	2
	2a Relative weight	"	"	"	"	121	5	4	1
	2b Clock reading	"	"	"	"	124	2	1	1
	3a Terms -- widest	"	"	"	"	92	34	20	14
	3b Quantity -- degree = 12	"	"	"	"	103	23	16	7
	4a Counting -- subtracting	"	"	"	"	100	26	18	8
	4b Terms position	"	"	"	"	109	17	12	5
	5a. Terms position	"	"	"	"	110	16	14	2

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	5b Numeral matching	CTB / McGraw Hill CTCBE	L	[illegible]	"	99	27	21	6
	6a. Measuring -- Thermometer (cold)	"	"		"	58	33	12	26
	6b Relationships -- Money - purse		"		"	78	13	44	34
	7a Terms -- matching	"	"		"	107	19	16	3
	7b. Counting - Adding / numerals	"	"		"	103	24	18	6
	8a. Money values / relative expense	"	"		"	104	17	11	6
	8b. Inverse proportions	"			"	49	77	33	44
	9a. Measuring - ruler	"	"	"	"	171	5	3	2
	9b Terms - matching	"				118	8	5	3
	10a. Measuring - calendar	"	"		"	171	5	5	0
	10b Geometric Terms - curve vs angle	"			"	76	50	25	25
	11a. Counting - subtracting / numeral	"	"	"	"	117	9	3	6
	11b. Relative age - logic	"	"	"	"	104	22	9	13
	12a Terms - fractions	"	"	"	"	62	64	39	25
	12b Relating numbers to objects	"	"	"	"	113	13	10	3
	13a Geometric Terms: circles	"	"	"	"	99	27	18	9

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	13b Matching related objects	CTB Mcgraw Hill (TDBE)	L	6C961	H	98	34	20	14
	14a Terms. few	"	"	"	"	69	57	28	24
	14b Terms. fourth	"	"	"	"	112	14	8	6
	1 Vowel sounds - matching	CTB McGraw-Hill (PRI)	H	6CB61	H	30	16	15	6
	3 Vowel sounds - unlike	"	"	"	"	33	13	7	6
	4 Consonant blends	"	"	"	"	34	12	6	6
	5 Consonant substitution initial and final	"	"	"	"	31	15	11	4
	6 Consonant substitution final	"	"	"	"	34	13	4	8
	7 Syllables - number	"	"	"	"	40	6	5	1
	16 Inflected words singular/plural	"	"	"	"	36	10	9	1
	17 Inflected words and affixes	"	"	"	"	35	11	7	4
	19 adjectives: positive, comparative superlative	"	"	"	"	39	7	2	5
	20 prepositions and prepositional phrases	"	"	"	"	41	5	2	3
	21 Pronouns	"	"	"	"	40	6	4	2
	23 Contractions - wordpairs, Etc	"	"	"	"	43	3	2	1

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	24. Compounds - recognition	CTB McGraw-Hill (PRI)	A	60861	H	38	8	5	3
	28. Subject/verb agreement - irregular	"	"	"	"	32	14	8	6
	29. Sentence building: subject - predicate	"	"	"	"	38	8	5	3
	38. Like/unlike entities: word definitions	"	"	"	"	45	1	1	0
	39. Like/unlike entities: synonyms	"	"	"	"	42	4	3	1
	40. Like/unlike entities: antonyms	"	"	"	"	42	4	1	3
	41. Like/unlike entities: pos./neg. sentences	"	"	"	"	45	1	0	1
	42. Use of context: sentence completion	"	"	"	"	42	4	3	1
	43 Homonyms in context	"	"	"	"	40	6	3	3
	44A. Sentence sense-match	"	"	"	"	36	10	6	4
	44B. Sentence sense: identify nonsense	"	"	"	"	38	8	5	3
	57. Event sequence	"	"	"	"	26	20	9	11
	58. Story setting	"	"	"	"	35	11	4	7
	59. Story detail: Recall/discuss words	"	"	"	"	35	11	2	9
	62. Cause	"	"	"	"	36	10	3	7
	63. Inference	"	"	"	"	31	15	6	9

30. Criterion Referenced Test Results: (summary of MIR form tabulation)

Code	Instructional	Publisher	Level	Component Code	Subgroup	Pretest No. of Pupils Passing (1)	Pretest No. of Pupils Failing (2)	Posttest No. of Pupils from Col.2 Passing	Posttest No. of Pupils from Col.2 Failing
	64 Conclusions	CTB / McGraw-Hill (PRI)	A	6.C.S.(c)	H	30	16	5	11
	67A Main ideas -- title	"	"	"	"	35	11	2	9
	67B Main ideas - summary	"	"	"	"	35	11	2	9
	68 Character analysis - feelings	"	"			38	8	2	6
	69 Character analysis - motive + cause	"	"	"	"	38	8	1	7
	70 Sensory imagery	"	"	"	"	36	10	2	8
	79 Problem solution	"	"	"	"	41	5	1	4
	83 Reality + fantasy	"	"		"	41	5	0	5